



March 1, 2016

Mr. Gary Greulich
New Jersey Department of Environmental Protection
Northern Regional Office
7 Ridgedale Avenue
Cedar Knolls, NJ 07927

RE: Remedial Action Progress Report No. 26 for the Retail Redevelopment Area Portion of the Former General Motors (GM) Linden Assembly Plant, 1016 West Edgar Road, Linden, Union County, New Jersey 07036; DUK059.701.0202.

Dear Mr. Greulich:

On May 26, 2009, the New Jersey Department of Environmental Protection (NJDEP) approved the New Jersey Remedial Action Workplan and RCRA Corrective Measures Proposal Addendum No. 1 (RAWP) for the Retail Redevelopment Area of the Former GM Linden Assembly Plant (Site; SRP PI# 014755; EA ID# SUB090001; BFO File Number: 20-09-24). The May 26, 2009 approval letter requested a Remedial Action Progress Report for the Retail Redevelopment Area on/by November 30, 2009. Subsequent reports are submitted on a quarterly basis.

This letter constitutes Remedial Action Progress Report No. 26 for the Retail Redevelopment Area. Hull & Associates, Inc. (Hull) has prepared this report on behalf of Linden Development LLC (Linden Development) to summarize remedial activities completed on the Site between December 1, 2015 and February 29, 2016.

Requirements, according to N.J.A.C. 7:26E-6.6, are shown below in ***bold italics***, with Hull/Linden Development's update following. The report certification required by N.J.A.C. 7:26E-1.5 is included in Attachment A.

1. NJDEP requires a description of each planned remedial action.

- i. ***scheduled to be initiated or completed within the reporting period***
- ii. ***actually initiated or completed during the reporting period; and***
- iii. ***scheduled but not initiated or not completed during the reporting period, including the reasons for the noncompliance with the approved schedule.***

Soil

As outlined in the approved RAWP, the remedial activities for soils on the Retail Redevelopment Area consist of the following:

- a. Establishing deed restrictions or environmental covenants to maintain commercial/industrial land use at the Site;
- b. Regrading the site to achieve the grade necessary to support the proposed redevelopment;
- c. Constructing building slabs, parking areas and roadways and placing one foot of clean soil over geotextile fabric in future greenspaces to preclude direct contact exposures to future receptor populations and/or provide cover to historical fill material; and
- d. Surveying to demonstrate that all areas are covered with engineering controls (e.g., building slabs, parking areas and roadways) or one foot of clean soil.



These remedial activities are directly related to construction activities associated with the future redevelopment at the Site which are dependent upon finalization of agreements with end users. Linden Development has been working on agreements with end users that will occupy various portions of the Site. Given that end user agreements have not been finalized, significant construction activities described in the RAWP have not yet been initiated. Construction support activities that have been conducted thus far included importing fill material, as discussed below.

Fill Material Import Activities

As outlined in previous quarterly reports, Linden Development has previously imported structural fill materials and cover soils from off-site sources for use during the redevelopment consistent with the RAWP and the Revised Soil and Concrete Reuse Proposal (Revision 1.0) approved by NJDEP.

During the current reporting period, asphalt and concrete from demolition of the former manufacturing slab/foundation generated during construction of Building 11 were stockpiled on the Retail Redevelopment Area. No off-site fill materials were imported to the Retail Redevelopment Area.

Groundwater

As outlined in the approved RAWP, remedial actions related to groundwater underlying the overall Retail Redevelopment Area do not appear to be necessary. However, sporadic historical concentrations of lead in limited monitoring wells have exceeded groundwater quality criteria at the Site, as observed in previous groundwater sampling data. As a result, the NJDEP may consider that an indeterminate Classification Exception Area (CEA) is necessary due to these sporadic exceedances and the presence of historical fill at the Site. Based on discussions with Mr. Greulich conducted since November 2009, the indeterminate CEA will be established by NJDEP as part of finalizing the Site NFA and will include the overburden aquifer within the Site boundaries. As discussed on November 18, 2009 and reiterated during ongoing quarterly meetings, Mr. Greulich currently maintains the information necessary to establish the indeterminate CEA (if ultimately deemed necessary) and no additional submittals by Linden Development are required.

As discussed in previous quarterly reports, Linden Development performed additional sampling within the proposed Walmart parcel as part of internal due diligence requirements for Walmart ground lease negotiations. These additional sampling activities were completed over several phases, and the sampling results were previously provided to NJDEP under separate covers. Based on the additional sampling results, trichloroethene (TCE), tetrachloroethene (PCE) and 1,1-Dichloroethene (1,1-DCE) were detected in groundwater at concentrations exceeding the NJDEP Class IIA groundwater standard within a limited portion of the proposed Walmart parcel near the northeast corner of the proposed Walmart building footprint.

To investigate the presence of PCE, TCE and 1,1-DCE, Linden Development proposed the installation of two overburden wells on the Walmart parcel. The well locations were approved by NJDEP on April 4, 2014. Between June 22 and 23, 2015, overburden monitoring wells MW-98S and MW-98D were installed by Advanced Drilling, Inc. under the direction of a Hull Hydrogeologist. Details on the installation, development, sampling and results were summarized in the August 17, 2015 letter report titled "Additional Monitoring Well Installation and Groundwater Analytical Report - Retail Redevelopment Area for the proposed Walmart parcel at the former General Motors (GM) Linden Assembly Plant, 1016 West Edgar Road, Linden, Union County, New Jersey 07036" provided to NJDEP and USEPA under separate cover.

This issue was further discussed during an August 25, 2015 meeting with the Case Manager, Gary Greulich. Based on the meeting, a groundwater permit and CEA will be established for the overburden groundwater zones over a portion of the Retail Development Area in the vicinity of the MW-98 monitoring well cluster. In November 2015, Advanced Drilling, under the supervision of a JM Sorge representative installed three additional monitoring wells MW-17D, MW-56D and MW-98B. Additional groundwater sampling of select wells is necessary to support the monitored natural attenuation remedy.

TestAmerica collected groundwater sampled from monitoring wells MW-17S, MW-26S, MW-55, MW-98S, MW-17D, MW-56D, MW-98D and MW-98B between November 23 and 25, 2015. During the sampling event, monitoring well MW-26S was dry and MW-55S was inaccessible and subsequently not sampled. Based on further conversations with the NJDEP Case Manager on February 8, 2016, an additional downgradient well (MW-27S) was added to the wells being sampled. The groundwater analytical results from the November sampling event are provided in Attachment B. Another round of groundwater samples was collected between February 22 and 24, 2016. The results from this sampling event will be provided in the next quarterly report.

Storm Sewer (AOI-18)

Remedial activities associated with AOI-18 are complete, as documented in Remedial Action Progress Report No. 1 (November 2009).

2. ***NJDEP requires discussion of problems and delays in the implementation of the RAWP, which should include proposals for corrections.***

As discussed above, remedial activities are directly related to construction activities associated with the future redevelopment at the Site which are dependent upon finalization of agreements with end users. Given current economic conditions, the construction activities described in the RAWP will not be implemented until redevelopment deals with end users are finalized above NJDEP criteria.

Linden Development is continuing to pursue agreements with end users for the Retail Redevelopment Area. In the interim, conditions at the Site are stable given that GM's original cover types (asphalt, building pads, etc.) remain intact.

3. ***NJDEP requires proposals for a deviation from, or modification to, the approved RAWP.***

As discussed with the NJDEP Case Manager on August 25, 2015, it is not anticipated that additional groundwater response actions related to PCE, TCE and 1,1-DCE in shallow groundwater at the Walmart parcel will be required. No deviations from, or modifications to, the approved RAWP are planned or required at this time.

4. ***NJDEP requires submittal of a revised schedule pursuant to N.J.A.C. 7:26E-6.5, to reflect the changes as noted in 1 through 3 above.***

As discussed with the NJDEP Case Manager during previous quarterly meetings, implementation of the site earthwork activities is dependent on finalization of development agreements with end users. Agreements with end users are progressing, but finalization of agreements and the start of site earthwork activities are being delayed by the final appeals process associated with site plan and zoning approvals. Due to the appeals process, work anticipated to begin previously has been delayed. Linden Development will provide NJDEP with a more detailed schedule as the legal appeals are finalized.

5. ***NJDEP requires an updated status of all permit applications relative to the critical path schedule.***

The permits required for initiation of the remedial activities are summarized below.

Permit/Approval Type	Status	Notes
Planning Board Approval	Approved 1/9/09	Site plan approved by City of Linden Planning Board
NPDES Permit (Storm Water)	Approved 9/16/09	NPDES Permit No. 0088323
Soil Conservation District	Approved 9/16/09	Approved by Somerset-Union Conservation District

6. NJDEP requires a listing of each remedial action to be performed during the next reporting period.

Agreements with end users are progressing, but finalization of agreements and the start of site earthwork activities are being delayed by the final appeals process associated with site plan and zoning approvals. Due to the appeals process, work anticipated to begin previously has been delayed. Linden Development will provide NJDEP with a more detailed schedule as the legal appeals are finalized. Linden Development reorganized some of the fill material stockpiles that were staged on the Redevelopment Area. The reconfigured stockpile material was segregated, leveled, shaped and bermed to provide for better aesthetics to potential occupants of the newly constructed industrial building on the neighboring Industrial #1 Redevelopment Area. Materials that were reorganized were kept in the same tracking grid where they were stockpiled.

7. NJDEP requires costs of each remedial action.

- i. Annual summary of all remedial action costs incurred to date; and**
- ii. Revised cost estimate for remedial actions remaining to be performed.**

Given that significant construction and remedial implementation has not yet commenced, significant remedial costs have not yet been accrued, with the exception of minor costs for the storm sewer cleaning (i.e., approximately \$7,000) reported in Remedial Action Progress Report No. 1 and approximately \$128,000 for site work grading and seeding activities to date.

The cost estimate for completing remedial activities remains consistent with that presented in the RAWP (i.e., approximately \$7,500,000 for earthwork and construction of engineering controls).

8. NJDEP requires a tabulation of sampling results (according to N.J.A.C. 7:26E-3.13(c)3) received during the reporting period and a summary of the data and any conclusions, presented in a format consistent with N.J.A.C. 7:26E-4.8.

Tabulated groundwater results from the November 2015 sampling event are provided in Attachment B. A groundwater sampling event was conducted between February 22 and 24, 2016 and the results from this event will be reported in the next quarterly progress report.

9. NJDEP requires a summary of active groundwater remedial actions.

- i. groundwater elevation maps with groundwater flow shown immediately before and during active groundwater remediation;**
- ii. graphs depicting changes in concentrations over time for all impacted wells as well as all down-gradient wells;**
- iii. summary of volume of water treated since last reporting period and the total volume treated since active remedial action commenced; and**
- iv. Summary of groundwater contamination, indicating either that contamination remains above applicable standards (include a proposal detailing additional remedial actions) or that concentrations are below applicable standards.**

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary (see discussion under item 1).

10. NJDEP requires a summary of natural remediation groundwater remedial actions.

- i. Summary table of the groundwater monitoring results collected; and**
- ii. Conclusions whether data indicate that natural remediation is no longer appropriate (must then also submit a revised RAWP).**

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary (see discussion under item 1).

11. NJDEP requires a description of all wastes generated as a result of the remedial action.

- i. Tabulation of waste characterization samples collected, including the physical state of the material, volume, number of samples, analyses performed and results;*
- ii. Listing of types and quantities of waste generated by the remedial action during the reporting period as well as to date;*
- iii. Name of the disposal facility used;*
- iv. Transporters' dates of disposal; and*
- v. Manifest numbers of each waste shipment.*

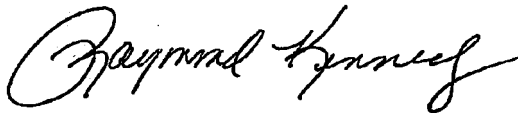
Investigation-derived waste (IDW) generated during installation of MW-17D, MW-56D and MW-98B included excess soil from boring installation and purged groundwater from well development. Additional IDW was generated during the November 23 to 25, 2015 groundwater sampling event. The IDW drums were removed from the Site by AWT Environmental Services, Inc. on December 31, 2015. The waste was taken to Waste Recovery Solutions, Inc. located at 343 King Street, Myerstown, PA 17067. Tabulated results and the laboratory report associated with waste characterization samples are provided in Attachment C. Copies of the waste manifest are included in Attachment D. Disposal facility information, manifest numbers and volumes are summarized in Table D-1 in Attachment D.

12. NJDEP requires that any additional support documentation that is available also be provided (photos, etc.).

Given that the majority of the remedial activities have not yet been implemented, no additional support documentation is available.

The next scheduled remedial action progress report will include remedial actions completed March 1, 2016 through May 31, 2016. Please feel free to contact me at (614) 793-8777 with any questions regarding the update provided herein.

Sincerely,



Raymond Kennedy
Senior Project Manager

Attachments

cc: Clifford Ng – U.S. EPA Region 2
David Jennings – Linden Development, LLC
Joseph M. Sorge – J.M. Sorge, Inc.

ATTACHMENT A

Report Certification

Certification

**Linden Development, LLC
ISRA Case Number E20040531-Retail**

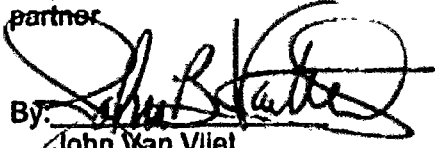
I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Linden Development, LLC, a New Jersey
limited liability company

By: Duke Construction Limited
Partnership, an Indiana limited
partnership, its managing member

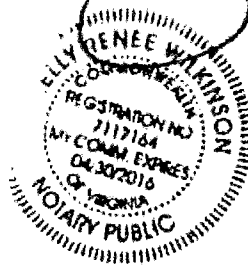
By: Duke Business Centers
Corporation, an Indiana
corporation, sole general
partner

Date: 3/2/2016

By: 
John Van Vleet
Vice President, Construction

Sworn to and subscribed to before
me on this 2nd day
of March, 2016


Notary



ATTACHMENT B

November 2015 Groundwater Sampling results

Duke Linden Retail Redevelopment Area


SUMMARY OF ANALYTICAL RESULTS: 460-105325-1
 Job Description: Duke Linden NJ Nov. 2015 Retail Development Area

 Former GM Linden Site
 1016 W. Edgar Road
 Linden, NJ

Client ID	NJ Higher of	DUK059-EB-1-W11351A	DUK059-TB-1-W11351B	DUK059-MW-8A5-G11351C	DUK059-MW-8A0-G11351D	DUK059-MW-8B0-G11351E	DUK059-MW-8B0-G11351F	DUK059-MW-8B0-G11351G	DUK059-MW-17S-G11351H	DUK059-MW-17D-G11351I	DUK059-MW-56D-G11351J
Lab Sample ID	POLs and GW	460-105328-1	460-105328-2	460-105328-3	460-105328-4	460-105328-5	460-105328-6	460-105328-7	460-105328-8	460-105328-9	460-105328-0
Sampling Date	Quality	11/25/2015 07:15:00	11/25/2015 07:16:00	11/25/2015 08:05:00	11/25/2015 09:15:00	11/25/2015 10:50:00	11/25/2015 10:50:00	11/25/2015 10:50:00	11/25/2015 08:06:00	11/25/2015 09:01:00	11/25/2015 10:56:00
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Dilution Factor	Criteria	1	1	1	1	1	1	1	1	1	1
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL
VOCs-8260C-WATER											
1,1,1-Trichloroethane	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-Trichloroethane	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-Dichloroethane	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,4-Trichlorobenzene	8	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	0.02	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dibromomethane	0.03	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichlorobenzene	600	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,2-Dichloroethane	3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone	300	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone	NA	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Axetone	6000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Benzene	1	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Bromodichloromethane	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Bromofom	4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromomethane	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	700	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloroethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Chloroform	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethane	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,2-Dichloropropane	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dibromochloromethane	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Dichlorodifluoromethane	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fracton TF	NA	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Isopropylbenzene	700	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methylcyclohexane	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
MTBE	70	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Styrene	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethane	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	800	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethane	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropane	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl Chloride	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Total Conc	NA	0	0	45.09	41.02	4.96	5.65	0	1.67	10.9	0.28

 Highlighted Concentrations shown in bold type face exceed limits
 J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
 U : Indicates the analyte was analyzed for but not detected.

 Lab Contact:
 Maria Luisa Cruz

ATTACHMENT C

November 2015 Waste Characterization Laboratory Analytical Report

Tabulated Results

Duke Linden Retail Development Area

Waste Characterization Results - Soil

TestAmerica

RECEIVED BY ENVIRONMENTAL SERVICES

SUMMARY OF ANALYTICAL RESULTS: 460-105245-1
Job Description: Duke Linden NJ Nov. 2015 Retail Area
Former GM Linden Site
1016 W. Edgar Road
Linden, NJ

Client ID	NJ Residential	NJ Non Residential	NJ Impact to	DUK059: WC-S1:S112515			DUK059: WC-S2:S112515			DUK059: WC-S3:S112515			DUK059: WC-S4:S112515		
Lab Sample ID	Soil Remediation	Soil Remediation	GW Soil	460-105245-3			460-105245-4			460-105245-5			460-105245-6		
Sampling Date	Standard	Standard	Screening	11/25/2015 10:50:00			11/25/2015 11:20:00			11/25/2015 11:20:00			11/25/2015 11:30:00		
Matrix			Level Nov 2013	Soil			Soil			Soil			Soil		
Dilution Factor				1			1			1			1		
Unit	mg/kg	mg/kg	mg/kg	mg/kg			mg/kg			mg/kg			mg/kg		
VOA-8260C-SOIL				Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
SOIL BY 8260C															
1,1,1,2-Tetrachloroethane	NA	NA	NA	0.00056	U	0.00056	0.0005	U	0.0005	0.00057	U	0.00057	0.00054	U	0.00054
1,1,1-Trichloroethane	290	4,200	0.3	0.00052	U	0.00052	0.00047	U	0.00047	0.00053	U	0.00053	0.0005	U	0.0005
1,1,2,2-Tetrachloroethane	1	3	0.007	0.00023	U	0.00023	0.00021	U	0.00021	0.00024	U	0.00024	0.00022	U	0.00022
1,1,2-Trichloroethane	2	6	0.02	0.00038	U	0.00038	0.00034	U	0.00034	0.00039	U	0.00039	0.00037	U	0.00037
1,1-Dichloroethane	8	24	0.2	0.00046	U	0.00046	0.00043	U	0.00042	0.00047	U	0.00047	0.00044	U	0.00044
1,1-Dichloroethane	11	150	0.008	0.00056	U	0.00056	0.0005	U	0.0005	0.00057	U	0.00057	0.00054	U	0.00054
1,2,3-Trichlorobenzene	NA	NA	NA	0.00015	U	0.00015	0.00013	U	0.00013	0.00015	U	0.00015	0.00014	U	0.00014
1,2,4-Trichlorobenzene	73	820	0.7	0.00044	U	0.00044	0.00039	U	0.00039	0.00044	U	0.00044	0.00042	U	0.00042
1,2-Dibromo-3-Chloropropane	0.08	0.2	0.005	0.00064	U	0.00064	0.00058	U	0.00058	0.00065	U	0.00065	0.00061	U	0.00061
1,2-Dibromochloroethane	0.008	0.04	0.005	0.00016	U	0.00016	0.00015	U	0.00015	0.00017	U	0.00017	0.00016	U	0.00016
1,2-Dichlorobenzene	5,300	59,000	17	0.00019	U	0.00019	0.00017	U	0.00017	0.00019	U	0.00019	0.00018	U	0.00018
1,2-Dichloroethane	0.9	3	0.005	0.00015	U	0.00015	0.00013	U	0.00013	0.00015	U	0.00015	0.00014	U	0.00014
1,2-Dichloropropane	2	5	0.005	0.00023	U	0.00023	0.00021	U	0.00021	0.00024	U	0.00024	0.00022	U	0.00022
1,3-Dichlorobenzene	5,300	59,000	19	0.00016	U	0.00016	0.00015	U	0.00015	0.00017	U	0.00017	0.00016	U	0.00016
1,4-Dichlorobenzene	5	13	2	0.00018	U	0.00018	0.00016	U	0.00016	0.00018	U	0.00018	0.00017	U	0.00017
1,4-Dioxane	NA	NA	NA	0.0087	U	0.0087	0.0078	U	0.0078	0.0089	U	0.0089	0.0083	U	0.0083
2-Butanone	3,100	44,000	0.9	0.001	U	0.001	0.00094	U	0.00094	0.0011	U	0.0011	0.001	U	0.001
2-Hexanone	NA	NA	NA	0.0013	U	0.0013	0.0012	U	0.0012	0.0013	U	0.0013	0.0012	U	0.0012
4-Methyl-2-pentanone	NA	NA	NA	0.003	U	0.003	0.0027	U	0.0027	0.0031	U	0.0031	0.0029	U	0.0029
Acetone	70,000	NA	19	0.0014	U	0.0014	0.0013	U	0.0013	0.0015	U	0.0015	0.0013	U	0.0013
Benzene	2	5	0.005	0.00027	U	0.00027	0.00025	U	0.00025	0.00028	U	0.00028	0.00026	U	0.00026
Bromochloromethane	NA	NA	NA	0.00023	U	0.00023	0.00021	U	0.00021	0.00024	U	0.00024	0.00022	U	0.00022
Bromodichloromethane	1	3	0.005	0.00052	U	0.00052	0.00047	U	0.00047	0.00053	U	0.00053	0.0005	U	0.0005
Bromofrom	81	280	0.03	0.00018	U	0.00018	0.00016	U	0.00016	0.00018	U	0.00018	0.00017	U	0.00017
Bromomethane	25	59	0.04	0.00044	U	0.00044	0.00039	U	0.00039	0.00044	U	0.00044	0.00042	U	0.00042
Carbon disulfide	7,800	110,000	6	0.00059	U	0.00059	0.00053	U	0.00053	0.00058	U	0.00058	0.00056	U	0.00056
Carbon tetrachloride	0.6	2	0.005	0.00059	U	0.00059	0.00053	U	0.00053	0.00058	U	0.00058	0.00056	U	0.00056
Chlorobenzene	510	7,400	0.6	0.00019	U	0.00019	0.00017	U	0.00017	0.00019	U	0.00019	0.00018	U	0.00018
Chloroethane	220	1,100	NA	0.00048	U	0.00048	0.00043	U	0.00043	0.00049	U	0.00049	0.00046	U	0.00046
Chloroform	0.6	2	0.4	0.00029	U	0.00029	0.00026	U	0.00026	0.00029	U	0.00029	0.00027	U	0.00027
Chloromethane	4	12	NA	0.00052	U	0.00052	0.00047	U	0.00047	0.00053	U	0.00053	0.0005	U	0.0005
cis-1,2-Dichloroethane	230	560	0.3	0.0003	U	0.0003	0.00027	U	0.00027	0.00031	U	0.00031	0.00029	U	0.00029
cis-1,3-Dichloropropene	2	NA	0.005	0.0002	U	0.0002	0.00018	U	0.00018	0.00021	U	0.00021	0.0002	U	0.0002
Cyclohexane	NA	NA	NA	0.00063	U	0.00063	0.00056	U	0.00056	0.00064	U	0.00064	0.0006	U	0.0006
Dibromochloromethane	3	8	0.005	0.0002	U	0.0002	0.00018	U	0.00018	0.00021	U	0.00021	0.0002	U	0.0002
Dichlorodifluoromethane	490	230,000	39	0.00044	U	0.00044	0.00039	U	0.00039	0.00044	U	0.00044	0.00042	U	0.00042
Ethylbenzene	7,800	110,000	13	0.00025	U	0.00025	0.00022	U	0.00022	0.00025	U	0.00025	0.00024	U	0.00024
Freon TF	NA	NA	NA	0.0006	U	0.0006	0.00054	U	0.00054	0.00061	U	0.00061	0.00057	U	0.00057
Isopropylbenzene	NA	NA	NA	0.00023	U	0.00023	0.00021	U	0.00021	0.00024	U	0.00024	0.00022	U	0.00022
Methyl acetate	78,000	NA	22	0.0012	U	0.0012	0.0011	U	0.0011	0.0013	U	0.0013	0.0012	U	0.0012
Methylcyclohexane	NA	NA	NA	0.00068	U	0.00068	0.00061	U	0.00061	0.0007	U	0.0007	0.00065	U	0.00065
Methylene Chloride	34	97	0.01	0.00044	U	0.00044	0.00039	U	0.00039	0.00044	U	0.00044	0.00042	U	0.00042
MTBE	110	320	0.2	0.00023	U	0.00023	0.00021	U	0.00021	0.00024	U	0.00024	0.00022	U	0.00022
Styrene	90	260	3	0.0002	U	0.0002	0.00018	U	0.00018	0.00021	U	0.00021	0.0002	U	0.0002
Tetrachloroethene	2	5	0.005	0.00041	U	0.00038	0.0014	U	0.00034	0.00039	U	0.00039	0.00037	U	0.00037
Toluene	6,300	91,000	7	0.00026	U	0.00026	0.00023	U	0.00023	0.00026	U	0.00026	0.00025	U	0.00025
trans-1,2-Dichloroethane	300	720	0.6	0.00053	U	0.00053	0.00048	U	0.00048	0.00054	U	0.00054	0.00051	U	0.00051
trans-1,3-Dichloropropene	2	NA	0.005	0.00014	U	0.00014	0.00012	U	0.00012	0.00014	U	0.00014	0.00013	U	0.00013
Trichloroethene	7	20	0.01	0.00035	U	0.00035	0.00032	U	0.00032	0.00036	U	0.00036	0.00034	U	0.00034
Trichlorofluoromethane	23,000	340,000	34	0.00046	U	0.00046	0.00042	U	0.00042	0.00047	U	0.00047	0.00044	U	0.00044
Vinyl chloride	0.7	2	0.005	0.00053	U	0.00053	0.00048	U	0.00048	0.00054	U	0.00054	0.00051	U	0.00051
Xylenes, Total	12,000	170,000	19	0.00015	U	0.00015	0.00013	U	0.00013	0.00015	U	0.00015	0.00014	U	0.00014
Total Conc	NA	NA	NA	0.00041			0.00203			0			0.01854		
Total Estimated Conc. (TICs)	NA	NA	NA	4.89			0.07			0.07			0.07		

*T There are no TICs reported for the sample

: LCS or LCSD is outside acceptance limits.

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

Duke Linden Retail Development Area

Waste Characterization Results - Soil

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

SUMMARY OF ANALYTICAL RESULTS: 460-105245-1
Job Description: Duke Linden NJ Nov. 2015 Retail Area
Former GM Linden Site
1016 W. Edgar Road
Linden, NJ

Client ID	NJ Residential	NJ Non Residential	NJ Impact to	DUK059: WC-S1:S112515			DUK059: WC-S2:S112515			DUK059: WC-S3:S112515			DUK059: WC-S4:S112515		
Lab Sample ID	Soil Remediation	Soil Remediation	GW Soil	460-105245-3			460-105245-4			460-105245-5			460-105245-6		
Sampling Date	Standard	Standard	Screening	11/25/2015 10:50:00			11/25/2015 11:10:00			11/25/2015 11:20:00			11/25/2015 11:30:00		
Matrix			Level Nov 2013	Soil			Soil			Soil			Soil		
Dilution Factor				1			1			1			1		
Unit	mg/kg	mg/kg	mg/kg	mg/kg			mg/kg			mg/kg			mg/kg		
SVOA-8270D-SOIL				Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
SOIL BY 8270D															
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	0.035	U	0.035	0.032	U	0.032	0.033	U	0.033	0.033	U	0.033
2,2'-oxybis[1-chloropropane]	23	NA	5	0.019	U	0.019	0.018	U	0.018	0.018	U	0.018	0.018	U	0.018
2,3,4,6-Tetrachlorophenol	NA	NA	NA	0.044	U	0.044	0.041	U	0.041	0.041	U	0.041	0.041	U	0.041
2,4,5-Trichlorophenol	6,100	68,000	68	0.047	U	0.047	0.043	U	0.043	0.044	U	0.044	0.044	U	0.044
2,4,6-Trichlorophenol	19	74	0.2	0.013	U	0.013	0.012	U	0.012	0.013	U	0.013	0.012	U	0.012
2,4-Dichlorophenol	180	2,100	0.2	0.011	U	0.011	0.01	U	0.01	0.01	U	0.01	0.01	U	0.01
2,4-Dimethylphenol	1,200	14,000	1	0.1	U	0.1	0.095	U	0.095	0.097	U	0.097	0.097	U	0.097
2,4-Dinitrophenol	120	1,400	0.3	0.35	U	0.35	0.33	U	0.33	0.33	U	0.33	0.33	U	0.33
2,4-Dinitrotoluene	0.7	3	NA	0.019	U	0.019	0.017	U	0.017	0.017	U	0.017	0.017	U	0.017
2,6-Dinitrotoluene	0.7	3	NA	0.025	U	0.025	0.023	U	0.023	0.023	U	0.023	0.023	U	0.023
2-Chloronaphthalene	NA	NA	NA	0.011	U	0.011	0.0098	U	0.0098	0.01	U	0.01	0.01	U	0.01
2-Chlorophenol	310	2,200	0.8	0.012	U	0.012	0.011	U	0.011	0.011	U	0.011	0.011	U	0.011
2-Methylnaphthalene	230	2,400	8	0.01	U	0.01	0.0096	U	0.0096	0.0097	U	0.0097	0.0097	U	0.0097
2-Methylphenol	310	3,400	NA	0.02	U	0.02	0.019	U	0.019	0.019	U	0.019	0.019	U	0.019
2-Nitroaniline	39	23,000	NA	0.015	U	0.015	0.014	U	0.014	0.015	U	0.015	0.014	U	0.014
2-Nitrophenol	NA	NA	NA	0.016	U	0.016	0.015	U	0.015	0.015	U	0.015	0.015	U	0.015
3,3'-Dichlorobenzidine	1	4	0.2	0.052	U	0.052	0.048	U	0.048	0.049	U	0.049	0.049	U	0.049
3-Nitroaniline	NA	NA	NA	0.014	U	0.014	0.013	U	0.013	0.013	U	0.013	0.013	U	0.013
4,6-Dinitro-2-methylphenol	6	68	0.3	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12
4-Bromophenyl phenyl ether	NA	NA	NA	0.015	U *	0.015	0.014	U *	0.014	0.014	U *	0.014	0.014	U *	0.014
4-Chloro-3-methylphenol	NA	NA	NA	0.02	U	0.02	0.019	U	0.019	0.019	U	0.019	0.019	U	0.019
4-Chloroaniline	NA	NA	NA	0.012	U	0.012	0.011	U	0.011	0.011	U	0.011	0.011	U	0.011
4-Chlorophenyl phenyl ether	NA	NA	NA	0.014	U	0.014	0.013	U	0.013	0.013	U	0.013	0.013	U	0.013
4-Methylphenol	31	340	NA	0.013	U	0.013	0.012	U	0.012	0.012	U	0.012	0.012	U	0.012
4-Nitroaniline	NA	NA	NA	0.018	U	0.018	0.016	U	0.016	0.017	U	0.017	0.017	U	0.017
4-Nitrophenol	NA	NA	NA	0.23	U	0.23	0.21	U	0.21	0.21	U	0.21	0.21	U	0.21
Acenaphthene	3,400	37,000	110	0.021	J	0.011	0.013	J	0.01	0.011	U	0.011	0.011	U	0.011
Acenaphthylene	NA	300,000	NA	0.012	U	0.012	0.011	U	0.011	0.011	U	0.011	0.011	U	0.011
Acetophenone	2	5	3	0.01	U	0.01	0.0094	U	0.0094	0.0096	U	0.0096	0.0096	U	0.0096
Anthracene	17,000	30,000	2400	0.066	J	0.044	0.047	J	0.041	0.042	U	0.042	0.042	U	0.042
Atrazine	210	2,400	0.2	0.021	U	0.021	0.019	U	0.019	0.02	U	0.02	0.02	U	0.02
Benzaldehyde	6100	68,000	NA	0.036	U	0.036	0.033	U	0.033	0.034	U	0.034	0.033	U	0.033
Benzo[a]anthracene	0.6	2	0.8	0.33		0.039	0.25		0.036	0.071		0.037	0.11		0.037
Benzo[a]pyrene	0.2	0.2	0.2	0.42	*	0.014	0.27	*	0.013	0.089	*	0.013	0.12	*	0.013
Benzo[b]fluoranthene	0.6	2	2	0.55		0.018	0.41		0.017	0.13		0.017	0.19		0.017
Benzo[g,h,i]perylene	380,000	30,000	NA	0.34	J	0.027	0.2	J	0.025	0.069	J	0.025	0.1	J	0.025
Benzo[k]fluoranthene	6	23	25	0.24		0.02	0.15		0.019	0.046		0.019	0.07		0.019
Bis(2-chloroethoxy)methane	NA	NA	NA	0.015	U	0.015	0.013	U	0.013	0.014	U	0.014	0.014	U	0.014
Bis(2-chloroethyl)ether	0.4	2	0.2	0.011	U	0.011	0.01	U	0.01	0.01	U	0.01	0.01	U	0.01
Bis(2-ethylhexyl) phthalate	35	140	1200	0.04	J	0.018	0.035	J	0.017	0.017	U	0.017	0.046	J	0.017
Butyl benzyl phthalate	1,200	14,000	230	0.03	J	0.014	0.013	U	0.013	0.014	U	0.014	0.014	U	0.014
Caprolactam	31,000	340,000	12	0.034	U	0.034	0.031	U	0.031	0.032	U	0.032	0.032	U	0.032
Carbazole	24	96	NA	0.025	J	0.012	0.025	J	0.011	0.011	U	0.011	0.012	J	0.011
Chrysene	62	230	80	0.37	J *	0.013	0.28	J *	0.012	0.083	J *	0.012	0.13	J *	0.012
Dibenz[a,h]anthracene	0.2	0.2	0.8	0.074		0.024	0.065		0.023	0.032	J	0.023	0.034	J	0.023

Duke Linden Retail Development Area

Waste Characterization Results - Soil



SUMMARY OF ANALYTICAL RESULTS: 460-105245-1
 Job Description: Duke Linden NJ Nov. 2015 Retail Area
 Former GM Linden Site
 1016 W. Edgar Road
 Linden, NJ

Client ID	NJ Residential	NJ Non Residential	NJ Impact to	DUK059: WC-S1:S112515	DUK059: WC-S2:S112515	DUK059: WC-S3:S112515	DUK059: WC-S4:S112515
Lab Sample ID	Soil Remediation	Soil Remediation	GW Soil	460-105245-3	460-105245-4	460-105245-5	460-105245-6
Sampling Date	Standard	Standard	Screening	11/25/2015 10:50:00	11/25/2015 11:10:00	11/25/2015 11:20:00	11/25/2015 11:30:00
Matrix			Level Nov 2013	Soil	Soil	Soil	Soil
Dilution Factor				1	1	1	1
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SVOA-8270D-SOIL				Result Q MDL	Result Q MDL	Result Q MDL	Result Q MDL
Dibenzofuran	NA	NA	NA	0.014 U 0.014	0.013 U 0.013	0.013 U 0.013	0.013 U 0.013
Diethyl phthalate	49,000	550,000	88	0.013 U 0.013	0.012 U 0.012	0.013 U 0.013	0.012 U 0.012
Dimethyl phthalate	NA	NA	NA	0.014 U 0.014	0.013 U 0.013	0.013 U 0.013	0.013 U 0.013
Di-n-butyl phthalate	6,100	68,000	760	0.014 U 0.014	0.013 U 0.013	0.013 U 0.013	0.013 U 0.013
Di-n-octyl phthalate	2,400	27,000	3300	0.024 U 0.024	0.022 U 0.022	0.022 U 0.022	0.022 U 0.022
Diphenyl	3,100	34,000	140	0.04 U 0.04	0.037 U 0.037	0.038 U 0.038	0.037 U 0.037
Fluoranthene	2,300	24,000	1300	0.54 U 0.014	0.46 U 0.013	0.12 J 0.013	0.2 J 0.013
Fluorene	2,300	24,000	170	0.017 J 0.01	0.01 J 0.0094	0.0096 U 0.0096	0.0096 U 0.0096
Hexachlorobenzene	0.3	1	0.2	0.019 U 0.019	0.018 U 0.018	0.018 U 0.018	0.018 U 0.018
Hexachlorobutadiene	6	25	0.9	0.013 U 0.013	0.012 U 0.012	0.012 U 0.012	0.012 U 0.012
Hexachlorocyclopentadiene	45	110	320	0.029 U 0.029	0.027 U 0.027	0.027 U 0.027	0.027 U 0.027
Hexachloroethane	35	140	0.2	0.017 U 0.017	0.016 U 0.016	0.016 U 0.016	0.016 U 0.016
Indeno[1,2,3-cd]pyrene	0.6	2	7	0.35 U 0.031	0.22 U 0.029	0.081 U 0.029	0.11 U 0.029
Isophorone	510	2,000	0.2	0.01 U 0.01	0.0093 U 0.0093	0.0095 U 0.0095	0.0094 U 0.0094
Naphthalene	6	17	25	0.012 U 0.012	0.011 U 0.011	0.011 U 0.011	0.011 U 0.011
Nitrobenzene	31	340	0.2	0.015 U 0.015	0.014 U 0.014	0.014 U 0.014	0.014 U 0.014
N-Nitrosodi-n-propylamine	0.2	0.3	0.2	0.016 U 0.016	0.015 U 0.015	0.015 U 0.015	0.015 U 0.015
N-Nitrosodiphenylamine	99	390	0.4	0.042 U 0.042	0.039 U 0.039	0.04 U 0.04	0.04 U 0.04
Pentachlorophenol	3	10	0.3	0.057 U 0.057	0.052 U 0.052	0.053 U 0.053	0.053 U 0.053
Phenanthrene	NA	300,000	NA	0.25 J 0.012	0.21 J 0.012	0.049 J 0.012	0.079 J 0.012
Phenol	18,000	210,000	8	0.015 U 0.015	0.014 U 0.014	0.014 U 0.014	0.014 U 0.014
Pyrene	1,700	18,000	840	0.55 U 0.021	0.42 J 0.02	0.12 J 0.02	0.19 J 0.02
Total Conc	NA	NA	NA	4.213	3.065	0.89	1.391
Total Estimated Conc. (TICs)	NA	NA	NA	0.0*T	0.0*T	0.0*T	0.89

*T There are no TICs reported for the sample

Highlighted Concentrations shown in bold type face exceed limits

*: LCS or LCSD is outside acceptance limits.

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.

Duke Linden Retail Development Area

Waste Characterization Results - Soil



SUMMARY OF ANALYTICAL RESULTS: 460-105245-1
 Job Description: Duke Linden NJ Nov. 2015 Retail Area
 Former GM Linden Site
 1016 W. Edgar Road
 Linden, NJ

Client ID	NJ Residential	NJ Non Residential	NJ Impact to	DUK059: WC-S1:S112515			DUK059: WC-S2:S112515			DUK059: WC-S3:S112515			DUK059: WC-S4:S112515		
Lab Sample ID	Soil Remediation	Soil Remediation	GW Soil	460-105245-3			460-105245-4			460-105245-5			460-105245-6		
Sampling Date	Standard	Standard	Screening	11/25/2015 10:50:00			11/25/2015 11:10:00			11/25/2015 11:20:00			11/25/2015 11:30:00		
Matrix			Level Nov 2013	Soil			Soil			Soil			Soil		
Unit	mg/kg	mg/kg	mg/kg	mg/kg			mg/kg			mg/kg			mg/kg		
METALS-SOIL				Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
SOIL BY 6010C															
Aluminum	78,000	NA	6,000	9,660		25.6	11,000		25.8	9,520		26.4	8,260		25.6
Antimony	31	450	6	2	U	2	2	U	2	2	U	2	2	U	2
Arsenic	19	19	19	2.2	J	1.2	2.4	J	1.2	1.7	J	1.3	3.2	J	1.2
Barium	16,000	59,000	2,100	82.7		1.8	95.3		1.8	110		1.8	117		1.8
Beryllium	16	140	0.7	0.69		0.42	0.79		0.42	0.63		0.44	0.58		0.42
Cadmium	78	78	2	0.52	U	0.52	0.52	U	0.52	0.54	U	0.54	0.52	U	0.52
Calcium	NA	NA	NA	7,930		73.6	13,000		74	6,670		76	16,300		73.6
Chromium	NA	NA	NA	22.6		1.2	26.2		1.2	25		1.2	24.7		1.2
Cobalt	1,600	590	90	11.5	J	1.4	12.9		1.4	10.6	J	1.5	9.5	J	1.4
Copper	3,100	45,000	11,000	7.6		1.6	6.8		1.6	10.1		1.7	9.8		1.6
Iron	NA	NA	NA	27,700		28.1	30,800		28.3	24,800		29	25,900		28.1
Lead	400	800	90	14.3		0.98	16.8		0.98	16.1		1	13.8		0.98
Magnesium	NA	NA	NA	7,230		62.1	8,520		62.4	7,170		64.1	8,790		62
Manganese	11,000	5,900	65	604		1.3	688		1.3	458		1.3	1,220		1.3
Nickel	1,600	23,000	48	27.4		1.8	32		1.8	26		1.9	24		1.8
Potassium	NA	NA	NA	2,160		37.7	2,430		37.9	1,920		38.9	2,160		37.7
Selenium	390	5,700	11	1.7	U	1.7	1.7	U	1.7	1.8	U	1.8	1.7	U	1.7
Silver	390	5,700	1	0.44	U	0.44	0.44	U	0.44	0.45	U	0.45	0.44	U	0.44
Sodium	NA	NA	NA	132	J	84.2	197	J	84.2	152	J	86.9	307	J	84.1
Thallium	5	79	3	2.2	U	2.2	2.2	U	2.2	2.3	U	2.3	2.2	U	2.2
Vanadium	78	1,100	NA	23.9		1.2	24.7		1.3	20		1.3	21.5		1.2
Zinc	23,000	110,000	930	94.9		1.8	68.1		1.8	69.5		1.9	68.7		1.8
SOIL BY 7471B															
Mercury	23	65	0.1	0.017	U	0.017	0.015	U	0.015	0.014	U	0.014	0.015	U	0.015

Highlighted Concentrations shown in bold type face exceed limits

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

Duke Linden Retail Development Area

Waste Characterization Results - Soil



SUMMARY OF ANALYTICAL RESULTS: 460-105245-1
Job Description: Duke Linden NJ Nov. 2015 Retail Area
Former GM Linden Site
1016 W. Edgar Road
Linden, NJ

Client ID	NJ Residential	NJ Non Residential	NJ Impact to	DUK059: WC-S1:S112515			DUK059: WC-S2:S112515			DUK059: WC-S3:S112515			DUK059: WC-S4:S112515		
Lab Sample ID	Soil Remediation	Soil Remediation	GW Soil	460-105245-3			460-105245-4			460-105245-5			460-105245-6		
Sampling Date	Standard	Standard	Screening	11/25/2015 10:50:00			11/25/2015 11:10:00			11/25/2015 11:20:00			11/25/2015 11:30:00		
Matrix			Level Nov. 2013	Soil			Soil			Soil			Soil		
WETCHEM-SOIL				Result	Q	MDL	Result	Q	MDL	Result	Q	MDL	Result	Q	MDL
SOIL BY 1030															
Burn Rate (mm/sec)	NA	NA	NA	2.2	U	2.2	2.2	U	2.2	2.2	U	2.2	2.2	U	2.2
SOIL BY 9045D															
corrosivity by pH (su)	NA	NA	NA	8.25	HF		9.09	HF		10.1	HF		10.6	HF	

HF : Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
 U : Indicates the analyte was analyzed for but not detected.

Duke Linden Retail Development Area

Waste Characterization Results - Water



SUMMARY OF ANALYTICAL RESULTS: 460-105245-1
 Job Description: Duke Linden NJ Nov. 2015 Retail Area
 Former GM Linden Site
 1016 W. Edgar Road
 Linden, NJ

Client ID	NJ Higher of	DUK059: WC-W1:W112515		DUK059: WC-W2:W112515	
Lab Sample ID	PQLs and GW	460-105245-1		460-105245-2	
Sampling Date	Quality	11/25/2015 11:40:00		11/25/2015 11:45:00	
Matrix	2005-2010	Water		Water	
Dilution Factor	Criteria	1		1	
Unit	ug/l	ug/l		ug/l	
VOA-8260C-WATER		Result	Q	Result	Q
WATER BY 8260C			MDL		MDL
1,1,1-Trichloroethane	30	0.28	U	0.28	U
1,1,2,2-Tetrachloroethane	1	0.19	U	0.19	U
1,1,2-Trichloroethane	3	0.08	U	0.08	U
1,1-Dichloroethane	50	0.24	U	0.24	J
1,1-Dichloroethene	1	0.34	U	0.34	U
1,2,4-Trichlorobenzene	9	0.27	U	0.27	U
1,2-Dibromo-3-Chloropropane	0.02	0.23	U	0.23	U
1,2-Dibromoethane	0.03	0.19	U	0.19	U
1,2-Dichlorobenzene	600	0.22	U	1.1	0.22
1,2-Dichloroethane	2	0.25	U	0.25	U
1,2-Dichloropropane	1	0.18	U	0.18	U
1,3-Dichlorobenzene	600	0.33	U	0.33	U
1,4-Dichlorobenzene	75	0.33	U	0.33	U
2-Butanone	300	14	2.2	5.4	2.2
2-Hexanone	300	0.72	U	0.72	U
4-Methyl-2-pentanone	NA	0.63	U	23	0.63
Acetone	6000	20	1.1	1.1	1.1
Benzene	1	0.09	U	12	0.09
Bromodichloromethane	1	0.15	U	0.15	U
Bromoform	4	0.18	U	0.18	U
Bromomethane	10	0.18	U	0.18	U
Carbon disulfide	700	0.22	U	0.41	0.22
Carbon tetrachloride	1	0.33	U	0.33	U
Chlorobenzene	50	0.24	U	0.24	U
Chloroethane	5	0.37	U	0.37	U
Chloroform	70	0.3	J	0.22	0.22
Chloromethane	NA	0.22	U	0.22	U
cis-1,2-Dichloroethene	70	0.96	J	1.3	0.26
cis-1,3-Dichloropropene	NA	0.16	U	0.16	U
Cyclohexane	NA	0.26	U	3.9	0.26
Dibromochloromethane	1	0.22	U	0.22	U
Dichlorodifluoromethane	1000	0.14	U	0.14	U
Ethylbenzene	700	0.3	U	27	0.3
Freon TF	NA	0.34	U	0.34	U
Isopropylbenzene	700	0.32	U	2.4	0.32
Methyl acetate	7000	0.58	U	0.58	U
Methylcyclohexane	NA	0.22	U	1.4	0.22
Methylene Chloride	3	0.21	U	0.71	J
MTBE	70	0.13	U	0.13	U
Styrene	100	0.17	U	0.17	U
Tetrachloroethene	1	0.12	U	4.4	0.12
Toluene	600	0.7	J	63	0.25
trans-1,2-Dichloroethene	100	0.18	U	1	0.18
trans-1,3-Dichloropropene	1	0.19	U	0.19	U
Trichloroethene	1	1.4	0.22	3	0.22
Trichlorofluoromethane	2000	0.15	U	0.15	U
Vinyl chloride	1	1	0.06	0.49	J
Xylenes, Total	1000	0.28	U	100	0.28
Total Conc	NA	38.36		250.86	

Highlighted Concentrations shown in bold type face exceed limits

* : LCS or LCSD is outside acceptance limits.

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

ATTACHMENT D

Table D-1 Disposal Manifest

**LINDEN DEVELOPMENT LLC SITE (FORMER GM LINDEN ASSEMBLY PLANT) 1016 WEST EDGAR ROAD, LINDEN, NJ
QUARTERLY REPORT NO.26 - RETAIL DEVELOPMENT AREA**

**TABLE D-1
SUMMARY OF WASTE DISPOSAL INFORMATION**

Source	Waste Description	Volume	Disposal Dates	Manifest Numbers	Disposal Facility
Demolition of concrete slab near former P-7 building column line	Solid (concrete pieces) with PCBs ranging from 0 to 7.5 mg/kg. Managed as concrete construction debris with low PCB concentrations.	61.98 tons	3/27/2012	12162-1 12161-2 12162-3 12162-4	TLA- Newark LLC Transfer Station/MRF 91A Bay Ave. Newark, NJ 973.274.1818
			4/18/2012	11972 11973	Tunnel Hill Reclamation Landfill 2500 Township Rd. 205, Rt.2 New Lexington, OH 43764 740.342.1180
Demolition of concrete slab near former K-18 building column line	Solid (concrete pieces) with PCBs ranging from 0 to 105 mg/kg. Managed as PCB remediation waste; B007 waste code	7,512 kg (8.28 tons)	4/9/2012	007744116 JJK	CWM Model City Facility 1550 Balmer Road Model City, NY 14107
Soil Cuttings form Installation of MW-98S and MW-98D	Drill Soil Cuttings	4 drums (approx.1.2 tons)	8/19/2015	14231-1	Waste Recovery Solutions, Inc. 343 King Street Myerstown, PA 17067 717.866.9955
MW-98S and MW-98D Development and Purge Water	Development and Purge Water	2 (drums) 110 gallons	8/19/2015	14231-1	
Soil Cuttings form Installation of MW-17S, MW-56D and MW-98B	Drill Soil Cuttings	19 drums (approx. 4.8 tons)	12/31/2015	14231-2	
Development water from installation of MW-17S, MW-56D and MW-98B and purge water from November 2015 groundwater sampling event	Development and Purge Water	4 drums 220 gallons	12/31/2015	14231-2	

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number NOT REQUIRED	2. Page 1 of 1	3. Emergency Response Phone 732 613 1660	4. Waste Tracking Number 14231-2	
5. Generator's Name and Mailing Address LINDEN DEVELOPMENT LLC 4900 SEMINAR ROAD SUITE 900 ALYANDRIA VA 22311			Generator's Site Address (if different than mailing address) 1016 WEST COGAN RD LINDEN NJ 07036			
Generator's Phone: 614-793-8777						
6. Transporter 1 Company Name Friedrich CANTAGE INC			U.S. EPA ID Number MSD 054126164			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address WASTE RECOVERY SOLUTIONS INC 343 KIN ST HYRISTON PA 17067			U.S. EPA ID Number			
Facility's Phone: 717 866 9955						
9. Waste Shipping Name and Description			10. Containers		11. Total Quantity	12. Unit Wt/Vol.
			No.	Type		
1. NON RCRA NON DOT LIQUIDS			04	DM	220 L	
2. NON RCRA NON DOT SOLIDS			19	DM	29,500 P	
3.						
4.						
13. Special Handling Instructions and Additional Information (1) LFL-39500 (2) LFL-39501						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Officer's Printed/Typed Name Raymond J. ...			Signature <i>[Signature]</i>		Month 12	Day 31
					Year 15	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name C. ...			Signature <i>[Signature]</i>		Month 12	Day 31
					Year 15	
Transporter 2 Printed/Typed Name			Signature		Month	Day
					Year	
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
17b. Alternate Facility (or Generator)			U.S. EPA ID Number			
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)			Signature		Month	Day
					Year	
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name			Signature		Month	Day
					Year	